ELECTROSTATIC DISCHARGE PROTECTION STRUCTURE FOR DEEP SUB-MICRON GATE OXIDE

ABSTRACT

[0039] The present disclosure provides a deep submicron electrostatic discharge (ESD) protection structure for a deep submicron integrated circuit (IC) and a method for forming such a structure. The structure includes at least two electrodes separated by a dielectric material, such as a thin gate oxide layer. In some examples, the thin gate oxide may be less than 25 Å thick. A source and drain are positioned proximate to and on opposite sides of one of the electrodes to form a channel. The drain is covered with a silicide layer that enhances the ESD protection provided by the structure. The source may also be covered with a silicide layer. In some examples, the drain may be floating.